

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A rotary electric machine, comprising:
a rotor; and
a stator having a stator winding with a first coil end group on an axial end thereof and a second coil end group on the other axial end, the stator winding including:
a plurality of regular segments welded to one another and regularly arranged in a pattern to provide a main portion of the stator winding and a plurality of irregular segments disposed to provide connections of the regular segments to form the stator winding and output leads, each of the regular segments having a turn portion disposed in the first coil end group and a pair of joining portions disposed in the second coil end group,
a first insulating layer covering the regular segments, and
a second insulating layer covering at least a portion of the irregular segments, wherein the second insulating layer has a higher insulation performance than the first insulating layer.
2. (Canceled)
3. (Canceled)
4. (Previously Presented) The rotary electric machine according to claim 1, wherein the irregular segment extends from the first coil end group.
5. (Previously Presented) The rotary electric machine according to claim 1, further comprising a fan, wherein the irregular segments are disposed on a passage of cooling wind generated by the fan.
6. (Canceled)
7. (Canceled)

8. (Original) The rotary electric machine according to claim 1, wherein the second insulating layer is made of a different material from the first insulating layer.

9. (Original) The rotary electric machine according to claim 8, wherein the first insulating layer is made of a polyester-imide and the second insulating layer is made of the polyester-imide and a polyamide-imide.

10. (Original) The rotary electric machine according to claim 8, wherein the first insulating layer is made of a polyester-imide and the second insulating layer includes a polyamide-imide.

11. (Original) The rotary electric machine according to claim 1, wherein the second insulating layer is thicker than the first insulating layer.

12. (Canceled)

13. (Previously Presented) A rotary electric machine, comprising:
a frame having a rectifier disposed at an axial end,
a rotor having a mixed flow cooling fan and a centrifugal cooling fan
respectively disposed at opposite axial ends; and
a stator having stator core and a stator winding with a first coil end group on an axial end of the stator core and a second coil end on the other axial end thereof,
wherein the stator winding includes a plurality of regular segments mounted in the stator core and welded to one another in a regular pattern to provide a main portion of the stator winding and a plurality of irregular segments mounted in the stator core in different patterns to provide connections of the regular segments to form the stator winding and output leads,
wherein each of the regular segments having a turn portion disposed in the first coil end group and a pair of joining portions disposed in the second coil end group, and

wherein at least a portion of the irregular segments is covered with an insulating layer of higher insulation performance than another insulation layer that covers the regular segments.

14. (Previously Presented) The rotary electric machine according to claim 13, wherein the first coil-end group and said rectifier are disposed near the centrifugal cooling fan, and

wherein a portion of said irregular segment extends from said first coil-end group to be connected to said rectifier.

15. (Previously Presented) The rotary electric machine according to claim 13, wherein each of the irregular segments has at least one joining portion disposed in the second coil-end group.